



Assessment of Nutritional Provision and Health facilities for Pregnant and Nursing Mothers in Anganwadi Kendra

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ABSTRACT

Nutrition is a crucial aspect of human health at all life stages, and it becomes even more critical during pregnancy and lactation. During these phases, a woman's body requires additional nutrients to support the foetus's growth and development and later nourish the newborn through breastfeeding. According to the World Health Organisation (WHO), exclusive breastfeeding is essential for the first six months of a baby's life, making maternal nutrition a key factor in ensuring both the mother's and child's well-being. Despite the significance of proper nutrition, many pregnant and lactating women fail to meet their dietary requirements due to various factors such as poverty, lack of knowledge about nutrition, and inadequate access to quality food. This study focuses on assessing the nutritional health status of pregnant and lactating mothers and the role of the Integrated Child Development Services (ICDS) in providing nutrition care and health services through the Anganwadi centre. The study was conducted in the Motijharan area of Sambalpur district, Odisha, where an Anganwadi centre was selected as the primary data collection site. Using simple random



sampling, data was collected from 19 pregnant women and 23 lactating women registered at the centre. The study also considered the role of Anganwadi workers, helpers, and Accredited Social Health Activists (ASHA) in the implementation of nutrition programs. Data collection was done through interviews covering key areas such as anthropometric measurements, dietary intake, food distribution provisions, medical facilities, and overall satisfaction with government services. The collected data was analysed using **simple arithmetic percentage calculations in Microsoft Excel 10** to determine trends and patterns. The findings revealed that all registered pregnant and lactating women **received food and medical assistance** provided by the government under the ICDS program. The distribution of **nutritious food items**, such as **sattu, groundnut laddu, puffed rice laddu, roasted gram flour, chickpeas, and eggs**, was aimed at addressing protein and micronutrient deficiencies. Additionally, iron and folic acid tablets were provided to prevent anaemia and other deficiency disorders. However, a major challenge observed was the **gap between food distribution and consumption practices**. Many women did not consume the supplements regularly due to **lack of awareness, cultural beliefs, or concerns about food quality**. Moreover, **quality concerns** were raised regarding some distributed food items, such as **groundnut laddu**, which were found to be of inferior quality compared to commercially available alternatives. Some women **complained about taste and smell issues**, which discouraged them from consuming the food regularly. This highlights the **need for stricter quality control measures** to ensure that distributed food is both nutritious and palatable. Another key issue was **limited awareness** about the importance of nutrition during pregnancy and lactation. The study found that **42.1% of pregnant women and 43.4% of lactating women had poor knowledge of nutrition**, making them vulnerable to malnutrition-related complications. Despite the provision



of **free medical services and supplements**, many women did not fully utilise them due to **misconceptions, lack of guidance, and irregular follow-ups**. Conclusion: The study highlights the significance of government nutrition programs in reducing malnutrition and improving maternal health. However, gaps in nutritional knowledge, food quality, and consumption practices must be addressed to achieve the program's full potential. Strengthening awareness initiatives, improving food quality, ensuring better monitoring, and engaging the community will help bridge these gaps. To make the ICDS program more effective, the following recommendations should be implemented:

Strengthening Awareness Campaigns: Conduct regular nutrition and health education sessions at Anganwadi centres. Need to change their myths and misconceptions about food and supplements. Promote the importance of nutrient intake during pregnancy and lactation through local community outreach programs.

Enhancing Food Quality and Acceptability: Ensure the quality and freshness of distributed food items. Conduct taste tests and feedback sessions to improve food acceptability, provide variety in food choices to prevent monotony, and encourage consumption.

Improving Accessibility and Monitoring: Strengthen distribution channels to ensure all beneficiaries receive their entitlements regularly. Implement a tracking system to monitor food consumption and supplement intake, and implement beneficial training for the Anganwadi workers and ASHA staff to provide individualised dietary counselling.

Increasing Community Participation: Engage local self-help groups (SHGs) in food preparation and distribution. Encourage husbands and family members to support maternal nutrition and healthcare. Create peer support groups where experienced mothers can guide new mothers on nutrition and breastfeeding.

Expanding Research Scope: Future research should include a larger sample size and multiple Anganwadi centres to obtain a more comprehensive understanding. Conduct case studies to analyse individual health



outcomes more effectively.

Introduction

The Integrated Child Development Services (ICDS) program is one of India's most significant and comprehensive welfare initiatives, launched in 1975 by the Government of India under the Ministry of Women and Child Development. The primary goal of the ICDS is to combat malnutrition, improve maternal and child health, and support early childhood care and education. This program plays a crucial role in ensuring the well-being of pregnant women, lactating mothers, and children less than six years of age, particularly in rural and economically disadvantaged communities.

The ICDS operates through a widespread network of Anganwadi Centres (AWCs), which serve as the main delivery points for nutrition, healthcare, and education-related services. These centres are run by Anganwadi Workers (AWWs) and Anganwadi Helpers (AWHs), who serve as community health functionaries, ensuring that essential services reach the intended beneficiaries.

The ICDS program is designed to address multiple aspects of child and maternal health, with the following key objectives:

1. To improve the nutritional and health status of children (0–6 years) by providing supplementary nutrition, growth monitoring, and regular health check-ups.
2. To reduce the incidence of malnutrition, morbidity, and mortality among infants and young children.
3. To support pregnant and lactating women by ensuring proper nutrition and healthcare access, this helps in reducing maternal mortality rates.
4. To promote early childhood care and preschool education, enhancing cognitive and social development among children aged 3–6 years.
5. To educate mothers and carers on nutrition, health, and hygiene practices, enabling better childcare and disease prevention.
6. To provide immunisation and basic healthcare services in coordination with the National Health Mission (NHM) and primary healthcare centres.

Core Services Provided Under ICDS

The ICDS program provides a six-fold package of essential services to improve the overall well-being of mothers and children:



1. **Supplementary Nutrition** – Pregnant women, lactating mothers, and children under six years receive nutritious food to prevent malnutrition and promote healthy growth.
2. **Immunization** – Vaccination services to protect children and mothers against preventable diseases such as polio, measles, and tetanus.
3. **Health Check-ups** – Regular medical examinations for children and expectant mothers to monitor their growth, nutritional status, and overall health.
4. **Referral Services** – Identifying children and mothers who require specialized medical treatment and referring them to healthcare facilities.
5. **Pre-School Education** – Non-formal education and learning activities for children aged 3–6 years to promote school readiness and cognitive development.
6. **Health & Nutrition Education** – Awareness programs on balanced diets, breastfeeding, hygiene, sanitation, and maternal care to improve public health outcomes.

Significance of ICDS in Improving Public Health

The ICDS programme has played a vital role in reducing malnutrition, improving maternal and child survival rates, and ensuring early childhood development across India. The initiative is particularly beneficial for marginalized and low-income communities, where access to healthcare and proper nutrition is limited.

Over the Years, ICDS has contributed to:

- * Declining infant mortality rates (IMR) and maternal mortality rates (MMR) by providing better healthcare access.
- * Increased awareness of maternal and child nutrition through targeted campaigns and interventions.
- * Improvement in school enrolment and cognitive development by promoting early childhood education.
- * Reduction in the prevalence of stunting, wasting, and under nutrition in children.

Challenges and Areas for Improvement

Despite its success, the ICDS programme faces several challenges that hinder its effectiveness, such as:

*** Quality of food distribution –**

Issues with the nutritional value and hygiene standards of food provided at Anganwadi Centres.



***Lack of awareness and education –**

Many beneficiaries are unaware of the importance of nutrient-rich diets and the services available.

*** Unequal accessibility** – Remote areas and underprivileged communities often face difficulties in accessing ICDS services.

*** Limited infrastructure and staffing** – Shortages of Anganwadi Workers, inadequate storage facilities, and lack of proper monitoring affect service delivery.

***Gaps in monitoring and implementation** – Need for better supervision, accountability, and real-time tracking of beneficiaries.

To strengthen the impact of ICDS, regular monitoring, improved food quality, community participation, and increased awareness campaigns are necessary. These efforts can help in achieving the programme's long-term goal of eradicating malnutrition and improving maternal and child health across India.

Objectives of the study:-

1. To evaluate the nutritional health status of the respondents through anthropometric measurements and dietary assessments.
2. To analyse the level of nutritional knowledge and awareness among the respondents regarding diet, supplements, and health practices.
3. To examine the effectiveness of food distribution and medical facilities available to pregnant and lactating women under the ICDS program.
4. To assess the respondents' satisfaction with government programs and provisions, identifying areas for improvement.

METHODOLOGY

The methodology section outlines the systematic approach adopted to conduct the study, ensuring that data collection and analysis are carried out effectively. This study focuses on assessing the **nutritional health status, knowledge, and awareness** of pregnant and lactating mothers, as well as evaluating the effectiveness of **government nutritional programs**.

Area of the Study:

The data for this study was collected from a single Anganwadi Kendra located in the Motijharan area of the Sambalpur district, Odisha.



Selection of the Respondents:

A structured research design was implemented, incorporating **random sampling techniques** to select respondents.

Number of the Respondents:

A total of **42 women** participated in the study, including **19 pregnant women** and **23 lactating women** all of whom are registered at the Anganwadi Kendra.

Tools Used for Data Collection

The data collection method involved gathering individual assessments on various aspects from all registered pregnant and lactating women in the Anganwadi Kendra, using an interview schedule.

The interview schedule included questions related to demographic details, anthropometric measurements, dietary intake patterns, nutritional awareness, food distribution, medical facilities, and respondents' satisfaction with government programs.

Statistical Analysis

Simple arithmetic percentage calculations were used to analyze the data and determine variations. The percentage analysis was performed using Microsoft Excel 10 to interpret trends and assess the impact of nutritional programs.

RESULT AND DISCUSSIONS:-

Table No-1 General Information of Anganwadi kendra

Categories	Numbers
Number of Pregnant Women Registered	19
Number of Lactating Women Registered	23
Number of Anganwadi Teachers	1
Number of Anganwadi Helpers	1



Number of ASHA	1
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This research highlights the role of Anganwadi Kendras in delivering essential nutrition and healthcare services under the Integrated Child Development Scheme (ICDS). The study reports that 19 pregnant women and 23 lactating women were registered and receiving government-provided services. Each Anganwadi Kendra includes: 1 teacher for preschool children's learning, 1 helper responsible for cooking and childcare and 1 Accredited Social Health Activist (ASHA) providing medical information. The study concludes that Anganwadi Kendras play a crucial role in improving maternal and child health, reducing malnutrition, and lowering mortality rates through targeted nutritional and healthcare interventions.

Table No-2 Nutritional Health Status of the Selected Respondents

BMI	Pregnant women		Lactating mother	
	No	(%)	No	(%)
Underweight	6	31.5	9	39.1
Normal	7	36.8	10	43.4
Overweight	4	21	3	13
Obesity	2	10.5	1	4.3

The study examines the Body Mass Index (BMI) distribution of pregnant and lactating women, revealing persistent nutritional challenges despite government interventions.

Key Findings:

- **Pregnant Women:**
 - 31.5% underweight
 - 36.8% normal
 - 21% overweight
 - 10.5% obese
- **Lactating Women:**
 - 39.1% underweight
 - 43.4% normal
 - 13% overweight



- 4.3% obese

Despite various government nutritional programs, malnutrition remains a concern. The study suggests that while there is only a slight gap between underweight and normal BMI categories, enhanced awareness and monitoring initiatives are essential to further improve the nutritional health status of women.

Table no-3 Socio Demographic profile of the respondents

Age (in years)	Pregnant women		Lactating mother	
	No	(%)	No	(%)
<19	2	10.5	2	8.6
20-25	6	31.5	4	17.3
26-30	4	21	9	39.1
>30	7	36.8	8	34.7
Educational Qualification				
Up to high school	14	73.6	18	78.2
Intermediate	3	15.7	3	13.04
Graduation	2	10.5	2	8.6
Post- graduation	0	0	0	0
Occupation				
Housewife	15	78.9	21	91.3
Tailoring	3	15.7	2	8.6
Beauty Parlour	1	5.2	0	0
Teacher	0	0	0	0
Business	0	0	0	0
Socio- Economic Status				
Lower	8	42.1	11	47.8
Middle	11	57.8	12	52.1
Upper class	0	0	0	0



Type of Family				
Nuclear	13	68.4	17	73.9
Joint	6	31.5	6	26.0
Possession of MCP card				
Yes	100	100	100	100
No	0	0	0	0
Visited At Home By				
Aganwadi teacher	No	-----	No	-----
ASHA	Yes	-----	Yes	-----
ANM	No	-----	No	-----

Key Socio-Demographic Findings:

1. Age Distribution:

- 36.8% of pregnant women and 34.7% of lactating mothers are above 30 years old.
- 31.5% of pregnant women are 20–25 years old, while 39.1% of lactating mothers fall in the 26–30 age groups.

2. Education:

- Most respondents have completed up to the 10th grade.
- Only 15.7% of pregnant women and 13.04% of lactating mothers finished intermediate education.
- 10.5% of pregnant women and 8.6% of lactating mothers have a graduation degree.
- Education is crucial for awareness and better health practices.

3. Occupation & Socioeconomic Status:

- Majority are housewives, with only a small fraction self-employed.
- 57.8% of pregnant women and 52.1% of lactating mothers belong to the middle-income group.
- 42.1% of pregnant women and 47.8% of lactating mothers fall in the low-income category, contributing to malnutrition.

4. Family Structure:

- Most respondents live in nuclear families.
- Only 31.5% of pregnant women and 26% of lactating women live in joint families.

5. Maternal and Child Healthcare:

- All respondents possess Mother and Child Protection Cards, ensuring access to healthcare services.
- ASHA workers provide regular home visits, offering medical information and addressing health concerns.

Socio-economic factors such as education, income level, and family structure significantly impact maternal and child health. Despite government interventions, low income and limited education remain barriers to better nutritional and healthcare outcomes. Increased awareness programs, financial support, and education could further enhance the well-being of pregnant and lactating women.

Table No-4

Analysis of Awareness Factors among Pregnant and Lactating Women

Awareness Factors	Pregnant women		Lactating mother	
	No	%	No	%
Awareness of Anganwadi and its medical facilities	9	47.3	11	47.8
Aware of location of Anganwadi centre	16	84.2	18	78.2
Aware of nutritional services available at the Anganwadi centre	8	42.1	6	26.08

The table presents data on the awareness levels of pregnant and lactating women regarding the Anganwadi centre and its services.

1. Awareness of Anganwadi and Its Medical Facilities

- **It is found that 47.3% of pregnant women and 47.8% of lactating mothers** are aware of the medical facilities available at the Anganwadi centre. This indicates that more than half of the women are unaware of the healthcare benefits provided, highlighting the need for **stronger awareness campaigns**.

2. Awareness of the Location of the Anganwadi Centre

- **It's proved that 84.2% of pregnant women and 78.2% of lactating mothers** know the location of the centre. This suggests that while most women are aware of the centre's presence, not all are utilizing its services effectively.



3. Awareness of Nutritional Services Available at the Anganwadi Centre

- Only **42.1% of pregnant women** and **26.08% of lactating mothers** are aware of the nutritional services provided. The low awareness among lactating mothers suggests a **gap in communication** regarding postnatal nutritional support.

To make strengthen and effective of the Awareness programs, counselling sessions, and community meetings should be conducted regularly to educate women about the benefits and services offered by the Anganwadi centre. Personalized Counselling: ASHA workers and Anganwadi staff should focus on one-on-one counselling to address individual concerns and encourage participation and use of local media and community engagement: Posters, leaflets, and social media campaigns in local languages can improve awareness among pregnant and lactating women.

Table No-5

Utilization of Anganwadi Services by Pregnant and Lactating Mothers

Utilization of Anganwadi Services	Pregnant Women	Lactating Mother
Home visit by Anganwadi teacher	No	No
Received MCP card from Anganwadi	Yes	Yes
Received supplementary Nutrition	Yes	Yes

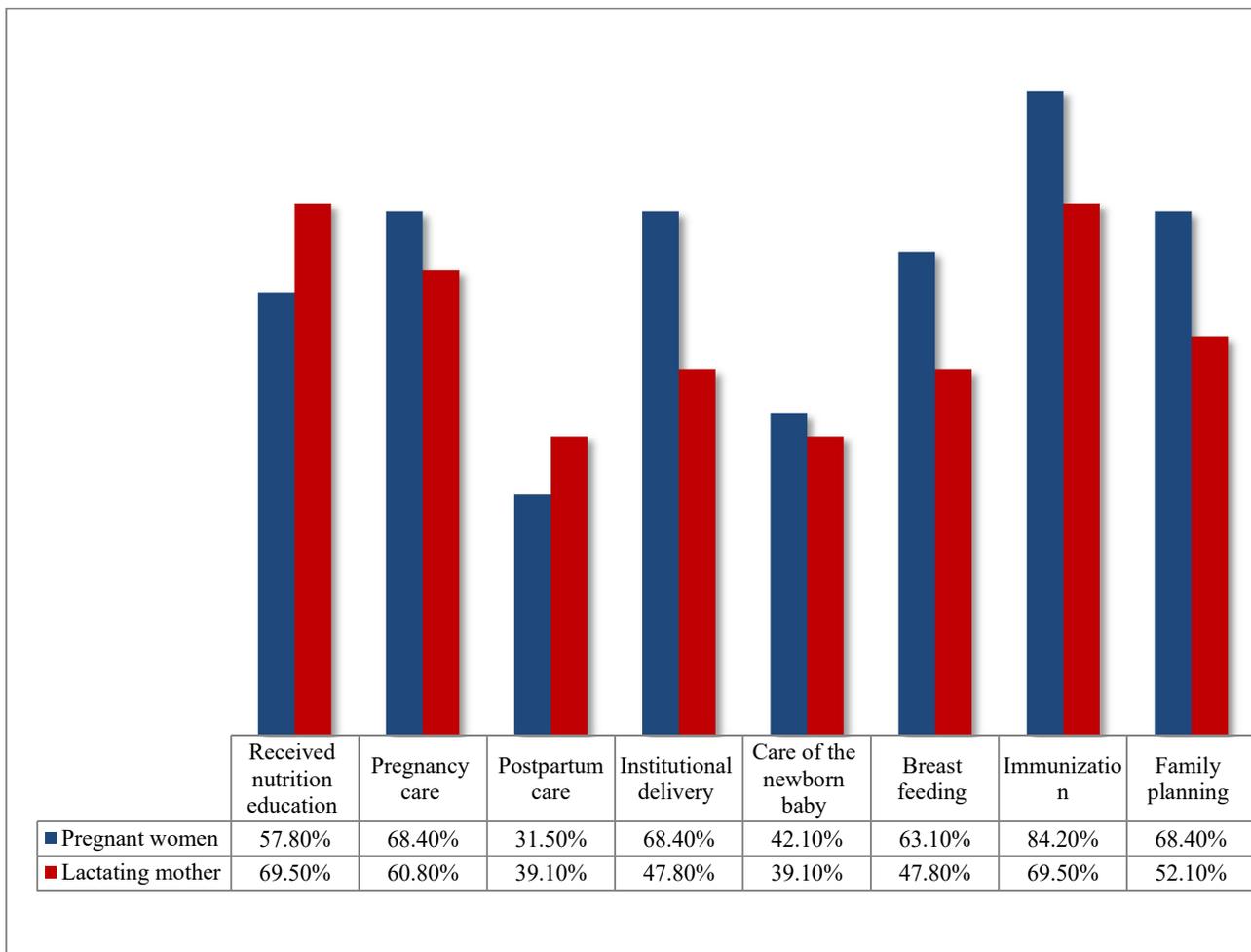
This section focuses on the utilization of services provided by Anganwadi Kendras under the Integrated Child Development Services (ICDS) program.

- **Lack of Direct Outreach:** Anganwadi teachers do not conduct door-to-door visits, which may impact awareness and service utilization.
- **Mother and Child Protection Card:** All respondents have received this card, which ensures access to healthcare services and additional facilities.
- **Nutritional Support:**

The primary goal of the nutritional program is to provide supplements to pregnant and lactating mothers and under this programme all respondents has received packed food items as per government guidelines.

Key Implications:

- The absence of door-to-door visits may reduce awareness and accessibility of services.
- While all mothers have received the protection card, their knowledge of available services remains limited.
- Ensuring effective distribution and awareness of nutritional supplements is crucial for maternal and child health.

GRAPH -1**Received Health Education from Anganwadi Teacher and health visitor counsellor**

The graph provides a **comparative analysis** of healthcare facilities received by **pregnant women and lactating mothers**.



Key Observations are:-

- Immunization has the highest utilization rate among pregnant women (84.2%) and lactating mothers (69.5%), showing strong awareness.
- Nutrition education is more widely received by lactating mothers (69.5%) than pregnant women (57.8%), possibly due to postnatal intervention programs.
- Pregnancy care and institutional deliveries are well adopted, with 68.4% of pregnant women receiving care, though a lower percentage of lactating mothers (47.8%) report institutional delivery.
- Postpartum care and newborn care have lower adoption rates compared to pregnancy care, indicating a potential need for greater postnatal support.
- Family planning awareness is higher among pregnant women (68.4%) compared to lactating mothers (52.1%), showing room for improvement in postpartum education.

Hence it recommends that:-

- Strengthen postpartum care services to ensure continuity of maternal and infant health support.
- Increase breastfeeding awareness programs to improve exclusive breastfeeding rates.
- Enhance postnatal institutional delivery awareness among lactating mothers to ensure continued safe childbirth practices.
- Expand immunization efforts further for lactating mothers and infants to close the gap between pregnancy and postnatal healthcare utilization.

The **health education programs** and **vaccination initiatives** have led to **significant improvements in maternal and child health**. Women are now more aware of **institutional deliveries, proper newborn care, and the importance of breastfeeding**, contributing to better health outcomes. However, continued **outreach and awareness efforts** are essential to sustain these improvements.

Table No-6

Maternal Healthcare Monitoring and Supplement Intake

Health care services	Pregnant women		Lactating mother	
	No	%	No	%
Weight checked	19	100	23	100



Blood pressure check-up	19	100	23	100
Diabetes check	19	100	23	100
Received iron and folic tablets	19	100	23	100
Received calcium tablets	19	100	23	100
Received vaccination	19	100	23	100

The study indicates **100% coverage** of essential health check-ups and supplements for both **pregnant women (19 respondents) and lactating mothers (23 respondents)**.

Key Observations:

- All pregnant and lactating women receive complete health check-ups, including weight monitoring, blood pressure, and diabetes screening.
- Iron, folic acid, and calcium supplements are universally provided, ensuring proper maternal nutrition.
- Vaccination rates are at 100%, indicating strong compliance with immunization programs.
- Excellent healthcare coverage in terms of monitoring, supplements, and immunization. The focus should now shift toward postnatal care, newborn health awareness, and exclusive breastfeeding to complement these medical interventions. Continued awareness programs will help sustain these high standards and expand outreach to underserved populations.

Table No-7: Analysis of Source of Information for Pregnant and Lactating Mothers to Avail Services

Source of information	Pregnant women		Lactating mother	
	No	%	No	%
Anganwadi Teachers	0	0	0	0
Anganwadi Worker	3	15.7	2	8.6
ASHA	2	10.5	1	4.3
ANM	0	0	1	4.3
Doctor	3	15.7	3	13
Family and neighbours	11	57.8	16	69.5



It appears that family and neighbours are the primary source of information for both pregnant and lactating mothers, with 57.8% of pregnant women and 69.5% of lactating mothers relying on them for knowledge about health and nutrition.

Key Observations:

- **Low engagement from healthcare professionals:**
 - Only 15.7% of pregnant women and 8.6% of lactating mothers received information from Anganwadi workers.
 - ASHA workers and doctors contribute minimally to information dissemination.
 - No pregnant women reported receiving information from ANMs (Auxiliary Nurse Midwives).
- **Dependency on informal sources:**
 - The reliance on family and neighbours suggests a lack of structured counselling from trained healthcare providers.
 - Misinformation or outdated practices might influence health decisions.

There should be: Strengthening ASHA & Anganwadi Worker Engagement- Conduct household visits by Anganwadi workers and ASHA staff to provide accurate maternal health information apart from that increase their involvement in group counselling sessions for pregnant and lactating mothers. Doctor and ANM Involvement - Arrange monthly health check-up camps where doctors and ANMs educate women about nutrition, hygiene, and medical facilities also need of Community Awareness Programs Organize village-level workshops to promote correct maternal health practices and use of posters, leaflets, and digital campaigns to disseminate health-related information.

Despite challenges, Anganwadi Kendras play a crucial role in addressing maternal health issues by ensuring safe deliveries, nutrition, and healthcare services with better awareness and community cooperation, the program has the potential to further reduce maternal and infant mortality rates.

Table No-8:

Analysis of Pregnant and Lactating Mothers' satisfaction level on Food and Medical Services

Satisfaction on offered food and services	Pregnant Women				Lactating Mother			
	Satisfied		Dissatisfied		Satisfied		Dissatisfied	
	No	(%)	No	(%)	No	(%)	No	(%)
Food Provided By Take Home Ration	16	84.2	3	15.7	19	82.6	4	17.3
Food Quality And Taste	14	73.6	5	26.3	16	69.5	7	30.4
Medical Facilities	16	84.2	3	15.7	18	78.2	5	21.7
ASHA Work Services	11	57.8	8	42.1	14	60.8	9	39.1

This table presents the **satisfaction levels** of pregnant and lactating mothers regarding various aspects of government-provided health and nutrition services. The key focus areas include the **Take Home Ration (THR)**, **food quality and taste**, **medical facilities**, and **ASHA work services**.

1. Satisfaction with Take Home Ration (THR)

It is found that only 84.2% of pregnant women and 82.6% of lactating mothers were satisfied with the food provided under the THR program. A **small percentage (15.7% pregnant women, 17.3% lactating mothers)** expressed dissatisfaction, which could be linked to **quality concerns or distribution gaps**. This high satisfaction rate indicates that the government's initiative to provide supplementary nutrition is **largely effective**.

2. Opinion on Food Quality and Taste

Only 73.6% of pregnant women and 69.5% of lactating mothers were satisfied with the quality and taste of the food. However, a **considerable portion (26.3% pregnant women, 30.4% lactating mothers)** found the food **unsatisfactory** in terms of quality and taste. This suggests that while the nutritional aspect is being addressed, **improvements in taste, freshness, and food variety** may enhance acceptance and consumption.

3. Opinion on Medical Facilities

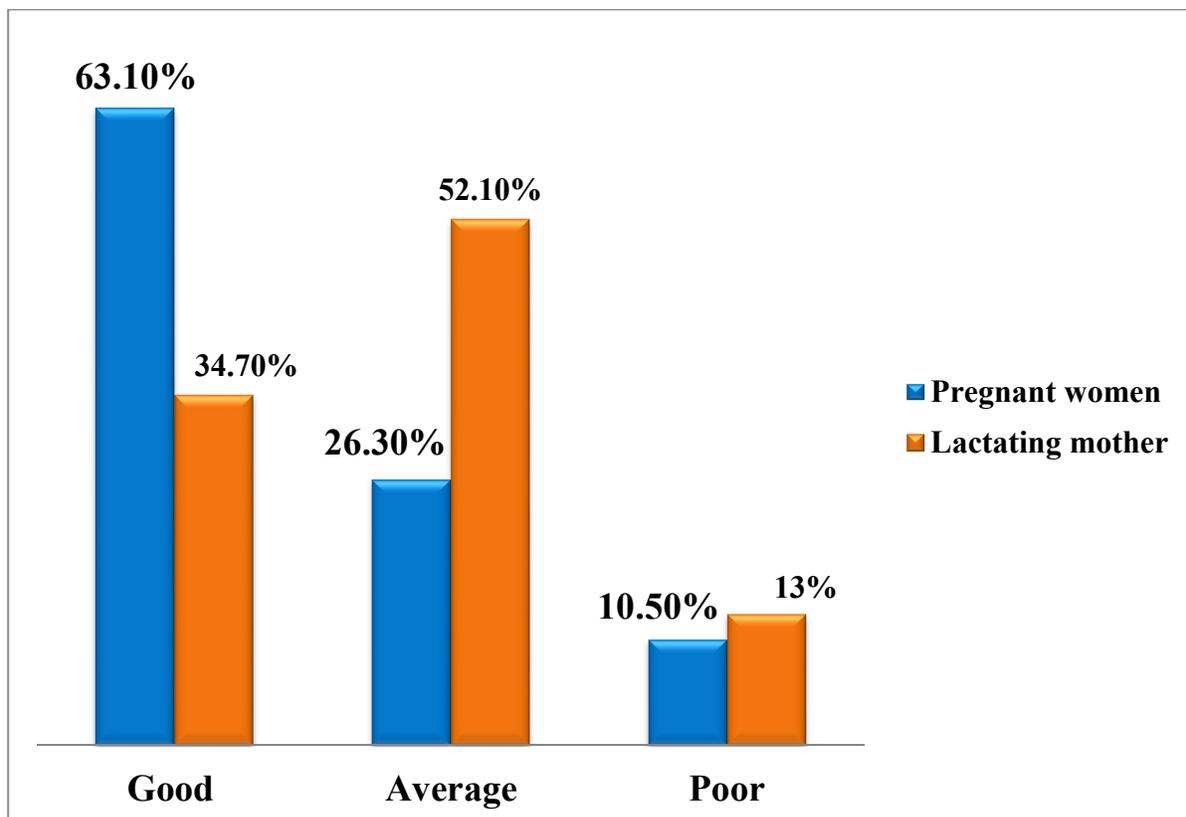
An average **84.2% of pregnant women** and **78.2% of lactating mothers** were satisfied with the medical facilities provided. Other hand **(15.7% pregnant women, 21.7% lactating mothers)** may be due to **limited accessibility, inadequate medical supplies, or lack of personalized care** were dissatisfied. The high satisfaction level indicates that **medical support services are generally effective**, but further improvement in **timely access and service quality** is necessary.

4. Opinion on ASHA Work Services

The study reports shows that **57.8% of pregnant women** and **60.8% of lactating mothers** were satisfied with ASHA workers' services. However, a **significant proportion (42.1% pregnant women, 39.1% lactating mothers)** were dissatisfied, which highlights **gaps in counselling, outreach, or follow-up care**. By the Strengthening of ASHA workers' involvement through **better training, incentives, and community engagement** may improve their efficiency.

The overall satisfaction level regarding government initiatives is high, but areas like food quality, taste, and ASHA services need improvement. Strengthening monitoring mechanisms, awareness campaigns, and service delivery models will help achieve better health outcomes for pregnant and lactating mothers.

GRAPH- 2 Satisfactions on Medical Facilities Received From Anganwadi kendra





This simple bar diagram shows the detailed analysis of the medical facilities provided under the ICDS (Integrated Child Development Services) program at Anganwadi Centres. It highlights satisfaction level of pregnant and lactating mothers on received free health check-ups, immunizations, and essential nutrient supplements such as calcium, iron, and folic acid tablets.

Key Insights from the Study:

All registered women receive medical facilities under ICDS. A total 63.1% of pregnant women and 34.7% of lactating mothers rated these services as good and fully utilized them whereas 26.3% of pregnant and 52.1% of lactating women expressed average satisfaction with the medical services and 10.5% of pregnant and 13% of lactating women were not satisfied, indicating possible gaps in service quality, accessibility, or awareness.

Government Efforts & Challenges

- Commendable effort by the government in reducing malnutrition and nutrient deficiencies.
- Challenges remain in awareness, accessibility, and service quality, leading to dissatisfaction among some women.

The following measures should be taken to improve the medical care and supplements.

1. Strengthening Awareness and Outreach

- **Regular Awareness Campaigns:** Conduct monthly health awareness sessions for pregnant and lactating mothers on the importance of immunization, nutrition, and medical check-ups.
- **Home Visits by ASHA & Anganwadi Workers:** Increase door-to-door visits to educate mothers who may not actively visit the centre.

2. Enhancing Medical Facilities & Service Quality

- **Increase Availability of Healthcare Workers:** Deploy more ANMs (Auxiliary Nurse Midwives) and ASHA workers to improve service coverage and accessibility.
- **Ensure Availability of Essential Supplements:** Some women may not be receiving calcium, iron, and folic acid tablets regularly. A tracking system should be implemented to ensure proper distribution.

3. Improving Accessibility and Service Delivery

- **Mobile Health Units:** Introduce mobile medical units in remote areas to provide regular check-ups and immunizations.
- **Dedicated Helpdesk for Grievances:** Set up a helpline or grievance redressal system where mothers can report issues with medical facilities, unavailability of medicines, or quality concerns.

4. Community Participation & Involvement

- **Involve Local Leaders & Women's Groups:** Conduct community meetings where mothers can provide feedback and suggestions to improve services.
- **Nutritional Counselling Sessions:** Train Anganwadi workers and ASHA workers to provide dietary counselling based on individual needs.

Table No-9

Consume medicine received from Anganwadi kendra

Consume Medicine	Regular Intake		Sometimes Intake		Don't Intake	
	No	%	No	%	No	%
Pregnant Women	9	47.3	8	42.1	2	10.5
Lactating Mother	11	47.8	6	26	6	26

Study Findings on Nutrient Supplement Consumption:

Despite free distribution of these essential supplements under the ICDS programme, consumption rates remain low due to lack of awareness and misconceptions:

- Only 47.3% of pregnant and 47.8% of lactating mothers take these tablets regularly.
- 42.1% of pregnant and 26% of lactating mothers consume them occasionally.
- 10.5% of pregnant and 26% of lactating mothers do not take them at all.

Key Nutritional Benefits:

- **Calcium:** Strengthens bones, increases bone density, and prevents disorders like osteoporosis and osteomalacia. It is also crucial for fetus bone and teeth development.
- **Iron:** Essential for red blood cell formation and oxygen transport, preventing anaemia-related complications like preterm birth and postpartum depression.



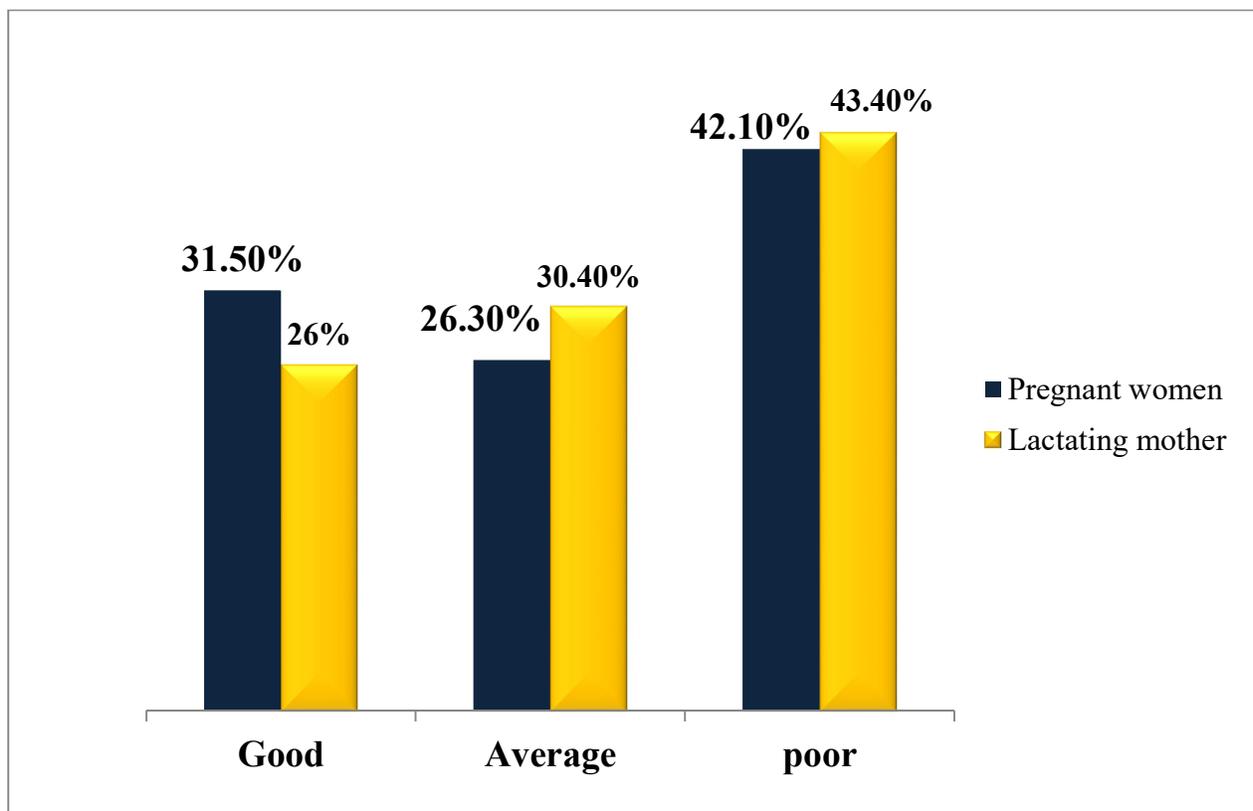
- **Folic Acid:** Plays a vital role in producing and maintaining blood cells. It also prevents neural tube defects (NTDs) in the fetus, affecting brain and spinal cord development.

Challenges & Barriers:

- **Lack of Awareness:** Many women discard the tablets because they do not understand their importance.
- **Misconceptions & Myths:** Some women believe that regular intake increases baby weight, leading to a higher chance of C-section delivery.

There should be maximize the attitude and knowledge through awareness campaigns and counselling by Anganwadi and ASHA workers are needed to: Educate mothers on the importance of nutrient intake during pregnancy and lactation. Dispel myths surrounding weight gain and C-sections. Ensure compliance through follow-ups and community engagement.

Graph- 3: Knowledge on Nutrients and Its Benefits



This bar graph visually represents the nutritional knowledge of pregnant and lactating mothers. The data reveals that:



- 31.5% of pregnant women and 26% of lactating mothers have good nutritional knowledge.
- 26.3% of pregnant women and 30.4% of lactating mothers have average knowledge.
- 42.1% of pregnant women and 43.4% of lactating mothers have poor knowledge of nutrition.

Key Observations:

1. A large proportion of both groups (over 40%) have poor nutritional knowledge, highlighting a significant gap in awareness.
2. Lactating mothers have slightly lower knowledge levels compared to pregnant women, which is concerning because lactation demands even higher nutrient intake.
3. Only about one-third of women have a good understanding of nutrition, indicating the need for more effective educational interventions.

Due to lack of awareness programs or ineffective communication from health workers, Cultural beliefs and myths about food and supplements, Low literacy levels affecting the understanding of nutrition, Limited access to diversified and nutrient-rich food.

Hence it Recommendations to Improve Nutritional Knowledge through

- **Enhanced Nutrition Education:**
Conduct regular awareness programs through Anganwadi centres, ASHA workers, and community meetings and Use visual aids and interactive sessions for better understanding.
- **Involvement of Family Members:**
Engage husbands, mothers-in-law, and community leaders in nutrition education to build collective awareness.
- **Practical Demonstrations:**
Organize healthy cooking sessions to teach easy, affordable, and nutrient-rich meal preparation.
- **Breaking Myths & Misinformation:**
Address common misconceptions about supplements and diet through counselling sessions.

Table No-10

Nutritional Support under the ICDS Programme

Name of the Food Items	Quantity	Frequency of food Distribution
Roasted Gram Flour (Sattu)	5 Kg	Once in a Month



Groundnut Laddu	2 Kg	Once in a Month
Puffed Rice Laddu	500 gm	Once in a Month
Chick Peas	1 Kg	Once in a Month
Raw Egg	12 Pieces	Once in a Month

Distributing packed food to pregnant and lactating women is a key objective of the **Integrated Child Development Services (ICDS)** programme. The government provides take-home rations through Anganwadi centres to combat deficiency disorders and eliminate malnutrition.

Nutrient-Rich Food Distributed Under ICDS programme-

1. Roasted Gram Flour (Sattu)

- Rich in protein (20–25 grams per 100 grams)
- High in fibre, calcium, iron, and magnesium
- Aids digestion and detoxifies the colon
- Distributed in 5 kg rations per month to meet protein requirements
- Low glycemic index, making it beneficial for pregnant women with gestational diabetes

2. Groundnut Laddu

- Made from groundnut and jaggery, rich in vitamins and minerals
- Contains healthy unsaturated fats, protein, fibre, magnesium, folate, thiamine, and vitamin B6
- Supports muscle and heart health, improves brain function, and boosts memory
- Regular consumption helps meet iron and protein demands during pregnancy and lactation

3. Jaggery

- A rich source of iron, preventing anaemia
- Provides energy without rapid blood sugar spikes
- Aids digestion and prevents constipation due to high fibre content
- A healthier alternative to refined sugar, satisfying sweet cravings during pregnancy

4. Puffed Rice Laddu (Murmura Laddu)

- Made with natural jaggery, high in potassium for better metabolism
- Helps maintain electrolyte balance in the body
- A good source of energy and iron, fulfilling essential nutritional needs



5. Chickpeas

- High in fibre, protein, and healthy fats with a low glycemic index
- Helps control blood sugar, manage weight, and support heart and gut health
- Contains nearly 22% iron per 100 grams, essential for red blood cell production
- Reduces the risk of anaemia, exhaustion, and nausea during pregnancy

6. Eggs

- A complete protein source containing essential amino acids for foetal growth
- Rich in **choline**, which supports brain development and neural tube formation
- Contains vitamins B12 and D, essential for nerve function, red blood cell formation, and calcium absorption
- Provides **omega-3 fatty acids** with anti-inflammatory benefits for maternal and foetal well-being

The ICDS programme plays a crucial role in addressing malnutrition and nutrient deficiencies in pregnant and lactating women. By distributing these essential food items, the government ensures that maternal and infant health outcomes improve, reducing complications such as anaemia, gestational diabetes, and neural tube defects. Regular consumption of these nutrient-rich foods can significantly enhance maternal health and child development.

Limitations of the Study:-

While this study provides valuable insights into the impact of the ICDS program on pregnant and lactating women, certain limitations must be acknowledged:

1. **Time Constraints:**

- Due to time limitations, the study does not explore various aspects in depth. A more extensive research period could provide a broader analysis of different factors affecting maternal and child nutrition.

2. **Case Study Approach:**

- Applying a case study methodology could offer a more detailed examination of individual experiences, allowing for a deeper understanding of personal challenges and program effectiveness at the individual level.

3. **Limited Sample Size:**



- The number of respondents in this study was limited. A larger sample size would provide a more comprehensive analysis of the causes and consequences of malnutrition, ensuring more justified and reliable findings.

4. Coverage of Anganwadi Centres:

- The study focused on a specific number of Anganwadi centres. Expanding the research to include more centres would enhance the reliability and replicability of the findings, offering a broader perspective on program implementation and its impact.

By addressing these limitations in future studies, the findings could become more robust, generalizable, and beneficial for policy-making and program improvements.

CONCLUSION:-

The study underscores the significance of the government's initiative in combating malnutrition and reducing maternal and infant mortality rates through the Integrated Child Development Services (ICDS) program. By providing pregnant and lactating women with nutritious food, medical check-ups, immunization, and essential supplements like iron, calcium, and folic acid, the program aims to improve maternal and child health outcomes. The findings indicate that all registered women receive these benefits, and the majority express satisfaction with the services.

However, a critical gap remains in the regular consumption of nutrient supplements, as many women avoid them due to a lack of awareness, misinformation, and cultural beliefs. The study highlights that 42.1% of pregnant women and 43.4% of lactating mothers have inadequate nutritional knowledge. This lack of awareness affects their dietary choices, potentially undermining the program's objectives. To strengthen the impact of the initiative, regular health and nutrition awareness campaigns should be conducted to educate women on the importance of proper nutrition during pregnancy and lactation.

Another key challenge identified is the disparity in food quality. Although the government provides packed nutritious food, its quality does not always match that of similar products available in the market. For instance, the groundnut laddu distributed through the program was found to be of lower quality in terms of taste, freshness, and aroma. These factors discourage consumption, reducing the intended benefits of the program.



To bridge the gap between policy and execution, it is essential to enhance food quality standards and establish a more effective distribution system. Regular monitoring, quality control measures, and feedback mechanisms should be implemented to ensure that the food provided meets acceptable nutritional and sensory standards. Additionally, incorporating community engagement and education on the importance of consuming the provided food can lead to better compliance and improved health outcomes.

RECOMMENDATIONS:-

The Integrated Child Development Services (ICDS) plays a crucial role in reducing malnutrition and improving maternal and child health. However, to maximize its impact, the following measures should be implemented:

1. Expanding Outreach and Accessibility

- Strengthen efforts to ensure ICDS benefits reach the most vulnerable populations, especially in rural and marginalized communities.
- Enhance communication strategies to increase awareness and participation among pregnant and lactating women.

2. Promoting Nutritional Awareness and Counselling

- Conduct regular nutrition education programs to highlight the importance of nutrient-rich diets.
- Address misconceptions about nutrient supplements and emphasize their role in preventing deficiencies and pregnancy-related complications.

3. Enhancing the Quality of Distributed Food

- Improve the quality, taste, and freshness of government-distributed food items to match market standards.
- Implement strict quality control measures to ensure the acceptability and effectiveness of food rations.

4. Strengthening Monitoring and Evaluation

- Establish a robust system to track food distribution, medical services, and supplement intake among beneficiaries.
- Conduct periodic assessments to identify gaps and improve service delivery.



5. Organizing Awareness Campaigns

- Launch targeted campaigns to educate women about the importance of consuming government-provided supplements and food rations.
- Engage community health workers to provide door-to-door counselling and address local beliefs that hinder supplement consumption.

By implementing these strategies, the ICDS program can achieve its objective of improving maternal and child nutrition, reducing malnutrition rates, and enhancing overall public health.

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